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The Recreational Fee Demonstration Program On The National Forests:

An Updated Analysis Of Public Attitudes and Beliefs, 1996-2001

David N. Bengston and David P. Fan

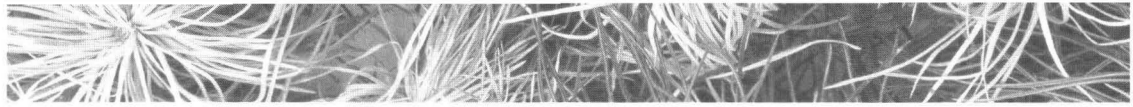

Table of Contents

	Page
METHODOLOGY AND DATA	2
1. Downloading News Stories	2
2. Filtering Text	2
3. Identifying Beliefs About the RFDP	2
4. Scoring Paragraphs	2
5. Checking Validity	4
FINDINGS	5
Updated Time Trends	7
CONCLUSIONS AND POLICY IMPLICATIONS	10
LITERATURE CITED	11
APPENDIX A: THE EFFECT OF THE NEWS MEDIA ON PUBLIC OPINION	12

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The Recreational Fee Demonstration Program on the National Forests: An Updated Analysis of Public Attitudes and Beliefs, 1996 – 2001

The Recreational Fee Demonstration Program (RFDP) was authorized by Congress in 1996 (P.L. 104-134) as a 3-year pilot program. The original authorization allowed the USDA Forest Service and the USDI National Park Service, Bureau of Land Management, and Fish and Wildlife Service to experiment with new or increased fees at up to 100 recreation sites per agency (General Accounting Office 1998). A wide range of fees have been collected under the RFDP, including fees for camping, parking, hiking, climbing, boat launching, reservations, interpretive services, visitor centers, and entrance to certain sites. The purpose of the RFDP is to explore the feasibility of using fees to generate increased revenues to deal with the backlog of recreation maintenance on Federal lands, thereby improving the quality of visitor services and enhancing the protection and maintenance of recreational resources. Public Law 106-291 extended authorization for the program through September 30, 2004.

The RFDP has sparked a national debate about the merits and demerits of charging fees for recreational access and activities on public lands. Some stakeholders recognize the need for increased recreation funding and support the program; others strongly oppose the program for a variety of reasons and have organized anti-fee protests across the country. The debate has been carried out in a number of forums in society, including public meetings, protests and demonstrations, legislative hearings, the courts, and the news media. The media play a dual role in social debates by serving as a direct forum for public discourse (through editorials, letters to the editor, and so forth) and by reporting on discussion occurring in other forums.

This study is an update of an analysis of the public debate about the RFDP as expressed in a large electronic database of news media stories. Bengston and Fan (2001) analyzed the public debate about the RFDP on national forests over the period January 1, 1996, through September 30, 1999. In this paper, we extend the original analysis through the third quarter of 2001. Both the original analysis and this update used the InfoTrend method and software (Fan 1988) to code a large database of news media stories for expressions of beliefs supporting favorable and unfavorable attitudes toward the RFDP. Computer content analysis of large numbers of news stories is a way to quickly and efficiently take the pulse of the public on a variety of social issues, to summarize the debate about controversial issues, and to monitor changes in the debate over time. Unlike surveys, focus groups, and interviews, this method can be (1) easily and rapidly updated, (2) extended back in time several years to establish time trends and hence monitor changing attitudes and beliefs over time, and (3) expanded to include additional issues or dimensions.[1]

In the next section we describe the data and methodology used in this study. Then we summarize the findings, presenting the main beliefs expressed in the public debate about the RFDP on national forests and updated time trends of favorable and unfavorable attitudes. We close by discussing conclusions and policy implications.

About The Authors:

David N. Bengston is Research Social Scientist with the USDA Forest Service, North Central Research Station, 1992 Folwell Ave., St. Paul, MN 55108; Phone: (651) 649-5162; e-mail: dbengston@fs.fed.us.

David P. Fan is Professor, Department of Genetics and Cell Biology, University of Minnesota, St. Paul, MN 55108; Phone: (612) 624-4718; e-mail: dfan@email.labmed.umn.edu.

[1] *See appendix A for a brief review of the research literature on the effect of the news media on shaping and reflecting public attitudes and opinion.*

Methodology and Data

This analysis involved five main steps: (1) downloading news stories about the RFDP on national forests from an online commercial database, (2) "filtering" the downloaded text to eliminate irrelevant stories and paragraphs, (3) identifying the main beliefs supporting favorable and unfavorable attitudes toward RFDP fees, (4) developing computer instructions to score paragraphs in the database for favorable and unfavorable beliefs, and (5) assessing the validity of the computer coding.

1. Downloading News Stories

A total of 96 news sources were included in the updated analysis, including local newspapers, national newspapers, regional and national newswires, and television and radio news transcripts. All of these sources were continuously available in the LEXIS-NEXIS online commercial database throughout the entire time period. The original analysis (Bengston and Fan 2001) included 109 news sources, but 13 of those have recently been deleted from the LEXIS-NEXIS database due to a dispute about payment of royalties to freelance writers. Therefore, we deleted these 13 news sources for the entire time period of the analysis so that the set of news sources is constant and the results of the update are comparable with the results of the earlier period. We downloaded 4,384 news stories about the Recreational Fee Demonstration Program, including 3,281 stories up to the third quarter of 1999 (the last period of the original analysis) and 1,103 stories from the fourth quarter of 1999 up to the end of the third quarter of 2001.

The following search command was used to identify and download stories: ((national forest) or (forest service)) and ((adventure pass) or (recreat! or camp! or demo!) and fee)), where the truncations recreat!, camp!, and demo! meant that any trailing letters were permitted. Only text within 100 words of the search terms was downloaded. This greatly reduced the amount of irrelevant text that would have been retrieved from stories that mentioned recreation fees only in passing.

2. Filtering Text

Examination of the downloaded stories revealed that many were not about RFDP fees, but about other types of fees on the national forests (e.g., grazing fees, cabin rental fees, fees paid by ski resorts operating on national forests). Irrelevant stories and paragraphs were filtered out of the text database with the InfoTrend computer software using the high-level Filtscor computer language (Fan 1988) as described in step 4 (below). The InfoTrend software can discard paragraphs that do not fit with user-specified criteria. Computer instructions were developed to remove paragraphs not discussing the RFDP on the national forests, resulting in the retention of about half of the initially downloaded text.[2] After we removed irrelevant paragraphs, all 96 news sources were still represented and the final database of stories included a wide range of stakeholder views about the RFDP.

3. Identifying Beliefs About the RFDP

We examined the remaining news stories about RFDP fees on the national forests to identify the most frequently expressed beliefs supporting favorable and unfavorable attitudes toward fees. Categories of beliefs about RFDP fees were not predetermined, but emerged from analysis of the textual data. We discuss the specific beliefs in the results section of the paper. These favorable and unfavorable beliefs are the concepts coded in this analysis, as described below.

4. Scoring Paragraphs

Computer instructions were developed to score RFDP text for expressions of each of the concepts of interest, that is, to count the number of times each of the

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[2] Repeat newswire stories were not filtered out for two reasons. First, when reporters draw on news services to write an article or editors run a news service story, they frequently tailor it to their readership. Hence, a repeat news service story is often adapted as it is repeated. Second, even if the identical story is repeated in multiple news sources, this simply means that it will have a more extensive effect on shaping how the public perceives the issue.

favorable and unfavorable beliefs about RFDP fees was expressed in our database of news stories. As with the filtering of text, scoring was done with the InfoTrend software using the Filtscor computer language. The Filtscor language has two components, each custom designed for a particular analysis. One is a *dictionary* composed of a list of ideas important for the topic and groups of words and phrases associated with each idea. The other component is a series of *idea transition rules* that specify how pairs of ideas in the dictionary are combined to give new meanings. Developing the dictionary and idea transition rules to capture expressions of beliefs about RFDP fees was an iterative process. In the development stage of the analysis, the coding decisions made by the still-evolving computer instructions are examined, and the analyst modifies the dictionary and rules until computer coding of the text agrees with the analyst's interpretation.

To illustrate the method, we describe here the dictionary components and idea transition rules developed for identifying expressions of one of the many beliefs about the RFDP: the belief that fees are needed to make up for declining budgets. Coding for this belief required five main ideas and groups of words and phrases associated with each idea:

- *Budget* (words and phrases that refer to budgets or funding, e.g., appropriations, budget, dollars, financial, fiscal, funding, money, purse strings, revenue).
- *Declining* (words and phrases that convey the idea of decline or insufficiency, e.g., anemic, cuts, declined, decreasing, downturn, dwindling, flat-lining, inadequate, insufficient, in the red, lacking, lagging, meager, moribund, much-needed, plummeting, plunging, red ink, reduction, shortfalls, shrinking, slashed, smaller, squeezed, strapped, tightened, tumbling).
- *Declining Budgets* (words and phrases that by themselves convey the idea of insufficient or declining budgets, e.g., belt tightening, cash strapped, tightening our belt, underfunded, under funded).
- *Enough* (words and phrases that convey the idea of sufficiency, e.g., adequate, enough, sufficient).
- *Negation* (words and phrases that change the sense of other words, e.g., failed, no, not, can't, don't, won't, without).

The words in each of these groups were truncated where appropriate to include variations such as decline, declined, declining, and so on.

Using these ideas and word groups, we developed idea transition rules that specified how ideas associated with the groups of words were related to each other. For example, an idea transition rule specified that a paragraph in our database containing a *Declining* word within 50 characters of a *Budget* word be counted as one expression of the *Declining Budgets* belief. The following paragraph is an example of text that coded for this belief using this rule:

> Longview - To help close a $2.3 million budget shortfall, the U.S. Forest Service will begin charging user fees at some of the most popular sites in the Mount St. Helens National Volcanic Monument. (Seattle Times 1996, p. B2).

In this example, the word "budget" in close proximity to the word "shortfall" conveys the idea of declining or inadequate budgets. In the context of a paragraph in which recreation fees on national forests are explicitly being discussed, the presence of this idea was found to be an accurate indicator of the *Declining Budgets* belief.

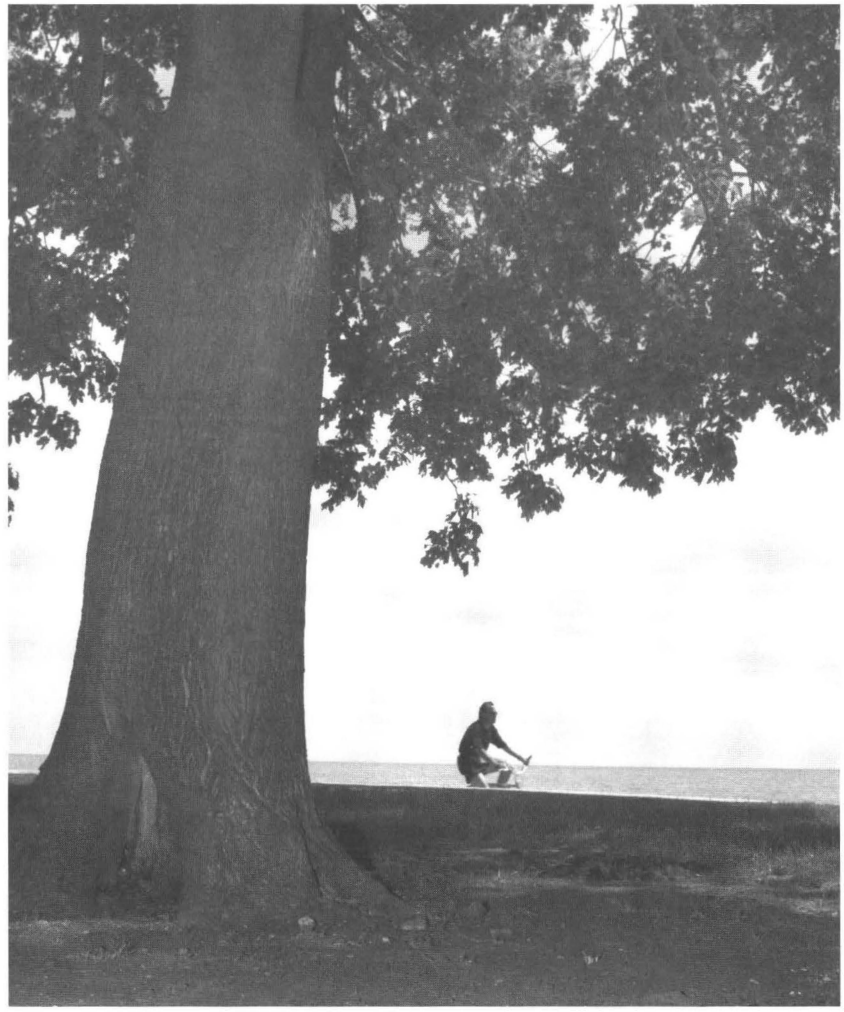
Another pair of idea transition rules specified first that a *Negation* word appearing up to 30 characters ahead of a word in the *Enough* category be counted as the idea *Declining,* as in "Recreation budgets have not been sufficient..." or "Congress has failed to appropriate adequate funding for recreation..." Second, as above, if this expression of *Declining* occurred within 50 characters of a *Budget* word, it was counted as one expression of the *Declining Budgets* belief.

Since paragraphs were our unit of analysis, paragraphs that contained multiple expressions of the same belief were counted as a single expression. If a paragraph contained expressions of different

favorable or unfavorable beliefs, however, each of the beliefs was counted once. The process of developing the computer rules and dictionaries included repeatedly applying them to random samples of text, examining accuracy and comprehensiveness of the coding decisions, and modifying the rules and dictionaries as needed. After we developed and refined the rules and dictionaries, we carried out a formal validity analysis.

5. Checking Validity

A content analysis variable is valid to the extent that it measures the concept it was intended to measure (Weber 1990). We examined a random sample of about 400 stories that were coded using our computer instructions to determine whether they were able to accurately identify expressions of the beliefs about recreation fees at least 80 percent of the time – a rule of thumb sometimes used in content analysis. After final refinements, the accuracy rates for individual beliefs were all greater than 80 percent, and most were in the range of 90 to 95 percent. For additional detail about the InfoTrend methodology, see Fan (1988, 1997).



Findings

Figures 1 and 2 show the most common favorable and unfavorable beliefs about the RFDP on the national forests that were expressed in news media discussion of this program. The underlying value represented by each set of beliefs is given in parentheses in figures 1 and 2. These are the same beliefs and values that were included in Bengston and Fan (2001).

As shown in figure 1, the belief that collecting fees is fair because those who benefit should help pay the costs of providing recreation services was expressed in support of the RFDP fees. This belief is sometimes referred to as "the user pays" principle. More common were expressions of various beliefs about benefits that would result from the new fees, based on utilitarian values. The most frequently

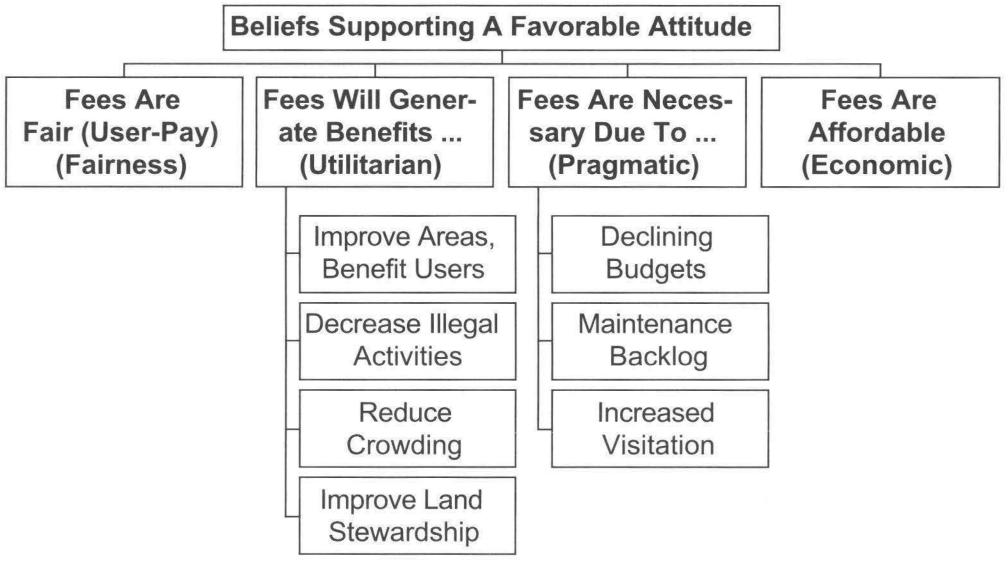


Figure 1.—Beliefs supporting a favorable attitude toward the Recreational Fee Demonstration Program on the U.S. national forests that emerged from our database of news media stories.

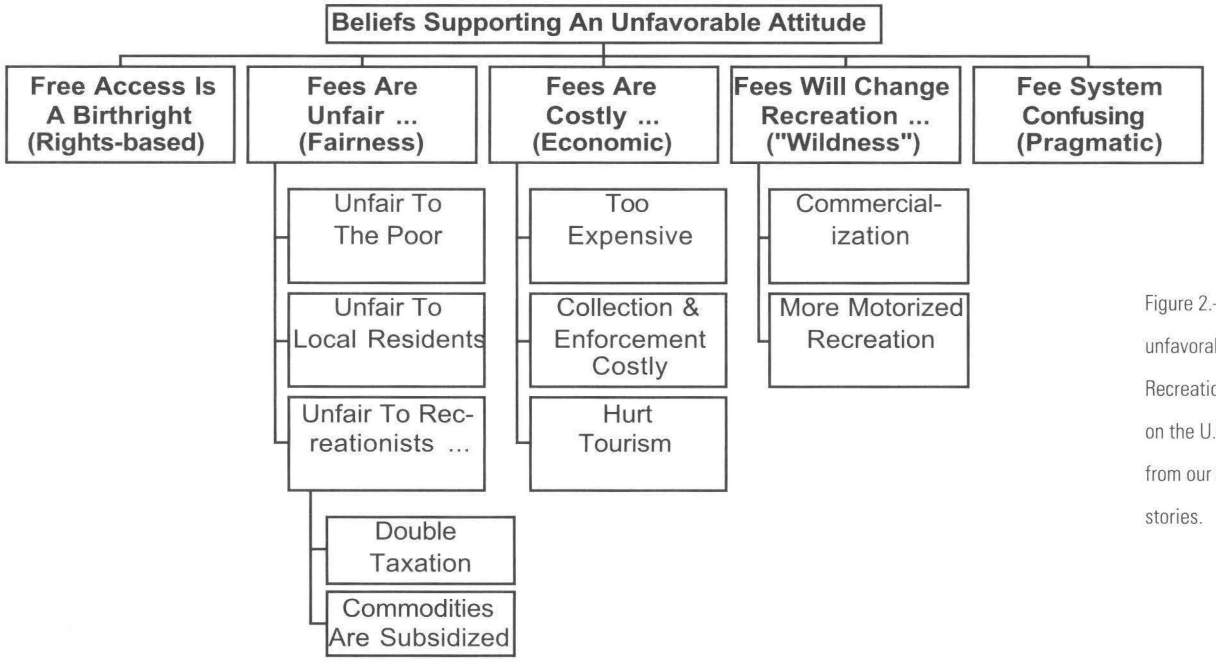


Figure 2.—Beliefs supporting an unfavorable attitude toward the Recreational Fee Demonstration Program on the U.S. national forests that emerged from our database of news media stories.

expressed of these beliefs was that fees will result in on-the-ground improvements to recreation areas and therefore tangible benefits to recreationists. A wide range of specific improvements to recreation areas were discussed in relation to this belief, including additional and cleaner bathrooms, new or reconstructed boat ramps, more trash collection, better trail maintenance, remodeled visitor centers, restored footbridges, repaired picnic tables, increased security patrols, graffiti removal, more interpretive programs, access for people with disabilities, and many other improvements.

Another utilitarian-based belief was that collection of fees and resulting increases in patrols by rangers will decrease illegal activities in recreation areas. This belief was not widely expressed in the debate nationally, but was expressed regionally on some urban national forests where partying, drug dealing, violence, and other illegal activities have been persistent problems. Less frequently expressed utilitarian beliefs supporting a favorable attitude toward fees include the view that collecting fees will reduce crowding in heavily used recreation areas and that funds collected will be used to generate ecological benefits ("improved land stewardship" in figure 1).

Figure 1 also shows several pragmatic beliefs that are put forward in support of recreation fees. These beliefs emphasize that, although we may not like to pay fees, they are necessary for several reasons. One of the most common pragmatic beliefs was that fees are necessary due to declining recreation budgets (discussed in part 4 of the Methodology and Data section). This belief was often expressed in the same paragraph or sentence as the belief that fees are necessary because of a backlog of maintenance projects in recreation areas. A final pragmatic belief was that fees are necessary to deal with the rapid increase in demand for outdoor recreation.

Finally, figure 1 shows that the economic argument that fees collected under the RFDP are affordable (or even a bargain) was occasionally expressed by fee supporters. Additional favorable beliefs not shown in figure 1 that were expressed with low frequency in our database include the economic arguments that fees create incentives for managers to be responsive to the demands of recreationists, and that "people value what they pay for" and therefore collection of fees helps promote better stewardship of recreation resources.

In addition to these specific beliefs, we also found many expressions of general support for RFDP fees. Many of these general expressions of support were conditional, i.e., support of the fee program as long as the money is used locally as promised by the Forest Service, as in the following example: "Many recreation users support the fee program when they can see direct results such as those found in Mill Creek Canyon or along the Mirror Lake Highway." (Wharton 1998, p. C1).

Figure 2 shows the most frequently expressed beliefs supporting an unfavorable attitude toward the RFDP on the national forests. The view that free access to the national forests is a birthright of Americans was frequently expressed. Several beliefs based on the underlying value "fairness" were important components of the unfavorable side of the public debate (fig. 2). Of these, the belief that fees are unfair to the poor was most often expressed. Other unfavorable beliefs that were fairness-based include the view that fees are unfair to local residents (because they shouldn't have to pay for recreation in their "own backyards," or because the tax base in local communities suffers from the presence of public lands that can't be commercially developed). A more often expressed belief was that fees are unfair to recreationists because they have already paid taxes to support the provision of recreation services on public lands ("double taxation" in figure 2) or because environmentally damaging commodity uses such as logging, grazing, and mining are subsidized, so why not subsidize environmentally benign outdoor recreation ("commodities are subsidized" in figure 2).

Opponents of fees also used economic arguments that focus on the cost of fees and the fee program. These include the belief that RFDP fees are too expensive, that collection and enforcement costs will be high and will consume most of the funds collected, and that fees will decrease the demand for recreation and hurt the tourism industry. Of these three, the belief that RFDP fees are too expensive was most frequently expressed.

Two beliefs—both based on the value "wildness"—relate to undesirable changes in outdoor recreation. First is the view that RFDP fees will lead to increased commercialization, privatization, and "commodification"

of recreation on public lands. This belief (labeled "commercialization" in figure 2) includes the idea that fees degrade wilderness experiences by making them market transactions. Another concern is that RFDP fees will lead to more motorized recreation at the expense of non-motorized recreation.

Finally, figure 2 shows the pragmatic concern that the systems for charging and collecting fees under the RFDP are confusing and overlapping. The number of expressions of this belief declined over time as the RFDP was streamlined and made more user-friendly to address these concerns. For example, a combined Northwest Forest Pass was introduced in 2000 in response to confusion over the many individual RFDP fees in the Pacific Northwest. In addition to these specific beliefs that support an unfavorable attitude toward RFDP fees, we also found many expressions of general opposition. For example, paragraphs in our database that reported on protests or demonstrations against the RFDP, or other unspecified opposition to recreation fees, were included in this "general negative" category, which turned out to be the largest category of unfavorable beliefs.

Updated Time Trends

Figure 3 shows the total number of paragraphs in our database of news media stories discussing the RFDP on the national forests. The dashed vertical line at III-1999 separates the original analysis from the update.[3] The "issue attention cycle" (Downs 1972) for the RFDP is evident in figure 3.[4] The volume of media discussion increased in 1996-1997 as the program was implemented on a growing number of national forests around the country, followed by a period of leveling off and gradual decline in discussion. This cycle is common to many public policy issues, including natural resource and environmental issues. The gradual decline in news media discussion of the RFDP in recent years suggests that the issue is winding down. Since the number of paragraphs per quarter shown in figure 3 is derived from a constant set of news sources over the entire time period, the increase in volume of discussion during 1996-1997 was not due to additional news sources becoming available online.

Several peaks in the volume of discussion are shown in figure 3. A jump in the volume of discussion occurred in the third quarter of 1996, when plans to collect fees were announced for the four southern California national forests, in Washington State, and elsewhere. The Adventure Pass program in the southern California forests began in the second quarter of 1997, which corresponds to a second peak in discussion. The

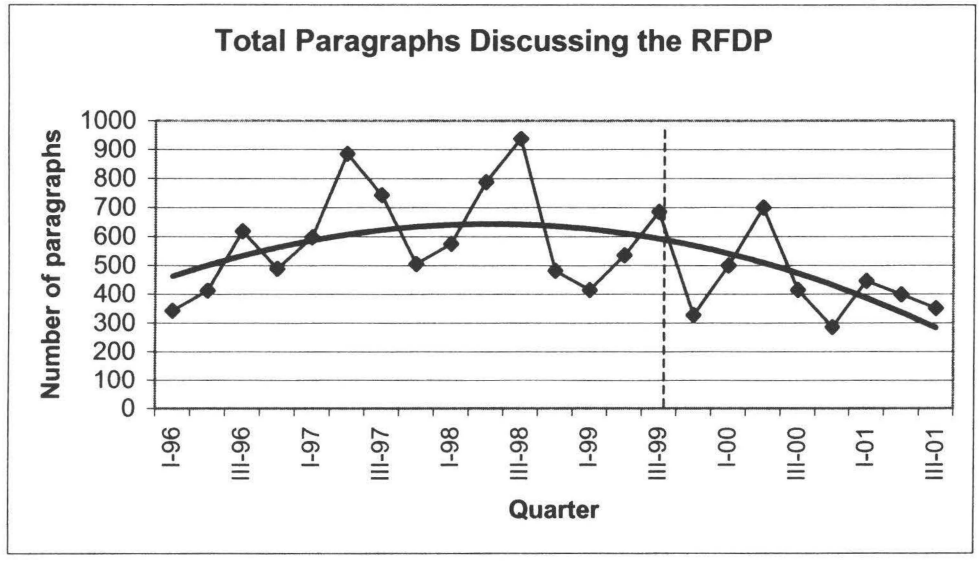


Figure 3.—Number of paragraphs in our database of news media stories discussing the Recreational Fee Demonstration Program on the U.S. national forests, by quarter, I-1996 through III-2001.

[3] In figure 3, a second-order polynomial equation illustrates the trend in the volume of news coverage over time: $y = -2.176x^2 + 44.086x + 419.67$.

[4] Downs (1972) proposed a model that describes the stages in the evolution of a social problem. He postulated that environmental concern passes through the following stages over time: (1) preproblem, (2) alarmed discovery, (3) recognition of the cost of making progress, (4) decline of interest, (5) postproblem.

highest peak in figure 3 occurred in the third quarter of 1998 when Congress extended the RFDP for 2 more years. This was also the quarter in which the Forest Tax Relief Act of 1999 was introduced in Congress in an unsuccessful attempt to end the RFDP. During the third quarter of 1999, a "national day of protest" against the fee program was observed at various locations around the country on August 14.

All expressions of favorable beliefs (fig. 1) and all expressions of unfavorable beliefs (fig. 2) were aggregated and plotted over time, to understand how overall attitudes toward the program have changed. Figure 4 presents the share of favorable and unfavorable attitudes over time. As in figure 3, the dashed vertical line at III-1999 separates the original analysis from the update. Over the entire time period, about 65 percent of the attitudes toward the fees expressed our database of news stories were favorable and 35 percent were unfavorable. This is identical to the shares of favorable and unfavorable attitudes found in the original analysis and similar to the findings of other studies of attitudes toward the RFDP on national forests reviewed in Bengston and Fan (2001).

Three of the peaks in volume of discussion shown in figure 3 correspond with increases in the share of unfavorable attitudes in figure 4. Peaks in the third quarter of 1996, the third quarter of 1999, and the second quarter of 2000 all correspond with increased shares of unfavorable attitudes. A gradual increase in the share of unfavorable attitudes is evident up to the third quarter of 1999. This was likely due to the activities of several anti-RFDP groups that were formed during this period and that were very effective at networking, organizing protests, and generating media coverage of their views and activities. During the third quarter of 1999—when the "national day of protest" against the RFDP took place—the share of favorable attitudes dropped to its lowest point. Since then, the share of favorable attitudes has rebounded somewhat. The share of favorable/unfavorable attitudes has fluctuated since the third quarter of 1999, ranging from 75 percent favorable in the fourth quarter of 1999 to about 50 percent favorable in the third quarter of 2001.

The overall trend in favorable/unfavorable attitudes toward the RFDP on the national forests expressed in the news media is shown in figure 5.[5] The trend line indicates a gradual decline in the share of favorable attitudes from 1996 through 1999, followed by a leveling off in 2000 and 2001.

Figure 6 highlights the share of unfavorable attitudes toward the RFDP accounted for by the Adventure Pass forests of southern California and the national forests of Oregon and Washington—hotspots of fee opposition. The growing share of expressions of unfavorable attitudes attributable to southern California, Oregon, and Washington found in the original analysis (through the third quarter of 1999) did not continue in 2000 and 2001. The share of unfavorable views has fluctuated recently, but there is no clear trend in unfavorable attitudes attributable to the main hotspots of opposition.

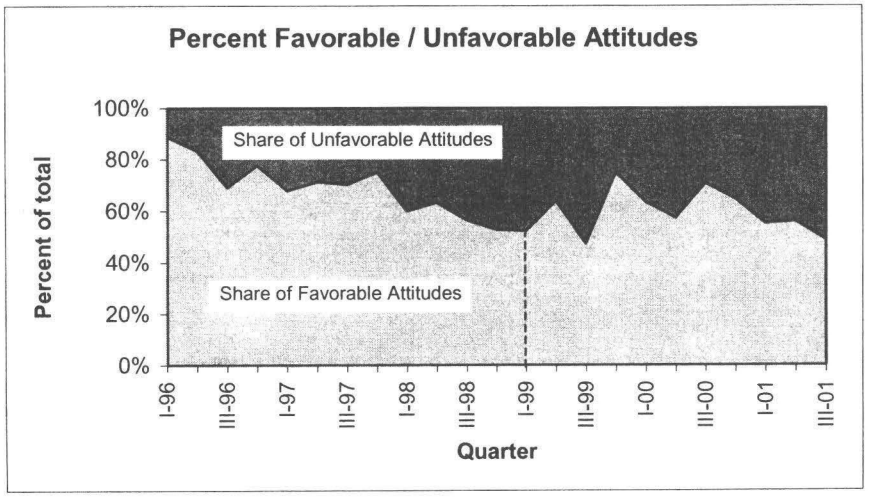


Figure 4.—Aggregate trend in the share of favorable and unfavorable attitudes toward the Recreational Fee Demonstration Program on the U.S. national forests, by quarter, I-1996 through III-2001.

[5] *A second-order polynomial equation was fit to the percentage of favorable/unfavorable attitudes to illustrate the trend: $y = 0.0008x^2 - 0.0305x + 0.8586$.*

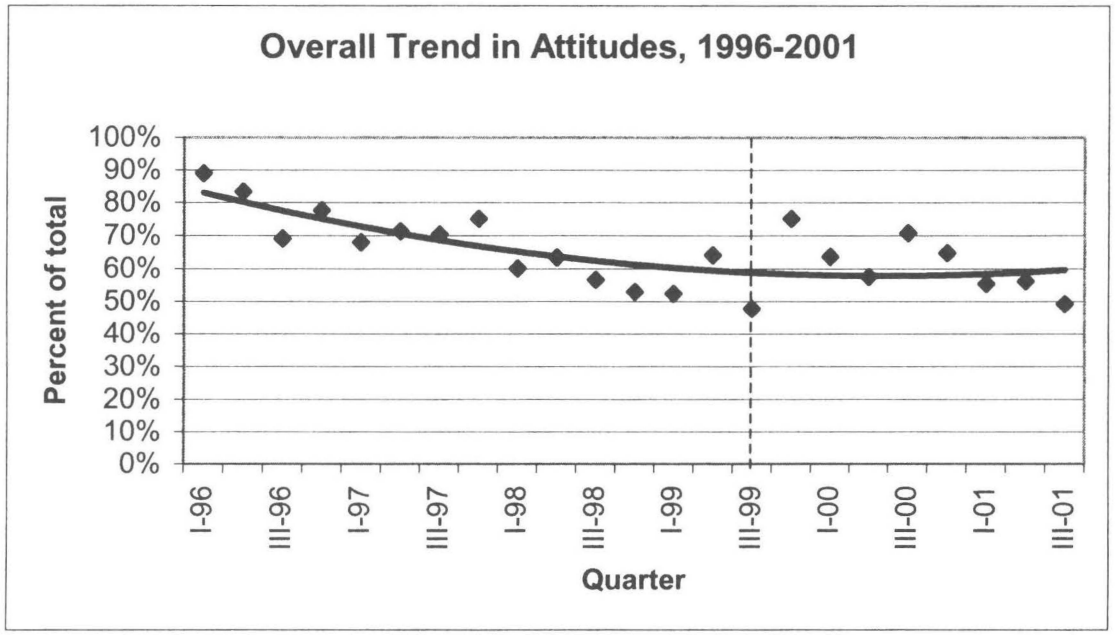


Figure 5.—Overall trend in attitudes toward the Recreational Fee Demonstration Program on the U.S. national forests, I-1996 through III-2001.

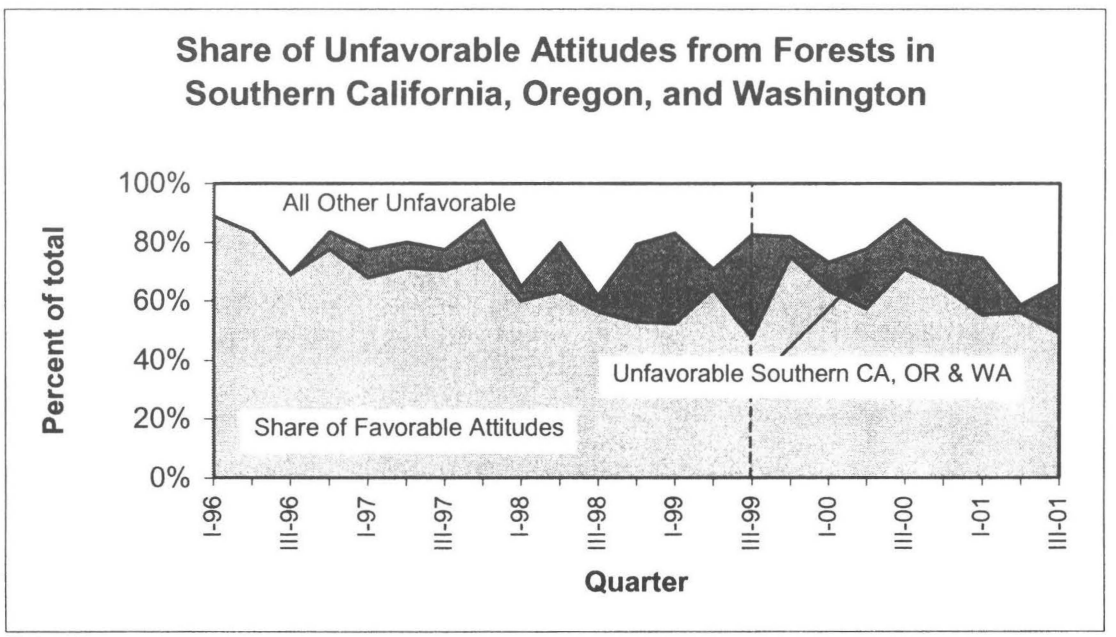
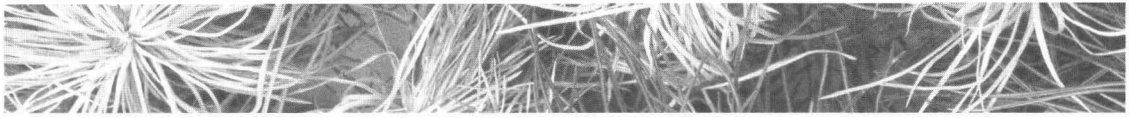


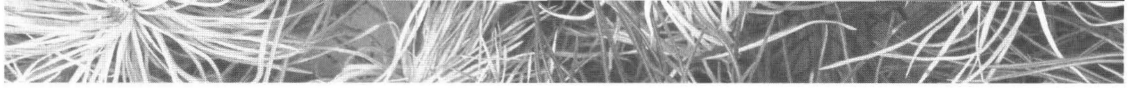
Figure 6.—Share of favorable and unfavorable attitudes toward the Recreational Fee Demonstration Program on the U.S. national forests, highlighting the share of unfavorable attitudes from southern California, Oregon, and Washington, by quarter, I-1996 through III-2001.



Conclusions and Policy Implications

This update shows that the public debate about RFDP fees on the national forests—as reflected in news media coverage—has been mostly supportive. But deep-seated concerns and differences of opinion about recreation fees on national forests also were evident from our analysis. Much of the support for fees expressed in news media stories was found to be conditional, contingent upon the revenue collected being used locally to fund needed improvements in recreation areas and facilities. The message for recreation managers is that support for the RFDP could quickly disappear if the fees are not used for improvements the public wants or if the improvements are slow in coming. It is important for managers to effectively communicate the outcome of improvement efforts to visitors and to the general public.

Another implication for managers and policymakers stems from our finding that the values underlying the beliefs of fee opponents differ from those of supporters. The underlying values of fee supporters were overwhelmingly utilitarian and pragmatic. For fee opponents, pragmatic beliefs were almost nonexistent, while rights-based and fairness beliefs were dominant. In addition, the "commercialization" belief is often motivated by wilderness or "wildness" values that are deeply held and often spiritual in nature. It appears that the unfavorable beliefs are often based on more deeply rooted values and convictions. Claims based on rights, fairness, and spiritual values tend to be held with greater intensity and depth of emotion than claims based on utilitarian and pragmatic grounds. For some, the very existence of the fee program violates fundamental values about the right to free access to public lands, or destroys the very wilderness experiences they seek by turning them into market transactions. Recreation managers and policymakers will need to continue to address these deeply held concerns to the extent possible. If the RFDP is made permanent, recreation managers will need to engage in ongoing dialog with these visitors and be prepared for the possibility of continuing conflict.



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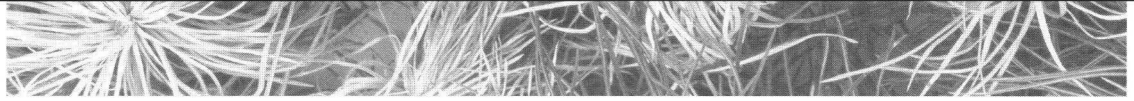

Appendix A: The Effect of the News Media on Public Opinion

The media have been found by communications researchers to both shape and reflect public opinion for a wide range of social issues. Analysis of the media has repeatedly been shown to produce results that parallel the findings of attitude surveys and opinion polls for various public policy issues, including environmental issues (e.g., Brosius and Kepplinger 1990, Gamson and Modigliani 1989, Hoffman 1996, Kepplinger and Roth 1979, Noelle-Neumann 1991, Parlour and Schatzow 1978, Salwen 1988) and other social issues (e.g., Fan 1988, 1997; Hauss 1993; Hill 1981; Lindenmann 1983; Shah *et al.* 1999).

Related studies have found that the news media also influence agenda-setting for environmental issues, i.e., there is a relationship between the relative emphasis given by the media to environmental issues and the degree of salience these topics have for the general public (e.g., Ader 1995, Anderson 1997, Atwater *et al.* 1985) or the political agenda (e.g., Downs 1973, Protess *et al.* 1987, Schoenfeld *et al.* 1979, Solesbury 1976). Therefore, an analysis of the public debate about RFDP fees contained in the news media is not mere "media analysis"—it is a window into the broader social debate and a means to gauge, indirectly, public attitudes toward fees.

Bengston, David N.; Fan, David P.
2002. **The Recreational Fee Demonstration Program on the national forests: an updated analysis of public attitudes and beliefs, 1996-2001**. Res. Pap. NC-340. St. Paul, MN: U.S. Department of Agriculture, Forest Service, North Central Research Station. 12 p.

Analyzes trends in favorable and unfavorable attitudes toward the Recreational Fee Demonstration Program (RFDP) on the national forests, updating an earlier study using computer content analysis of the public debate. About 65 percent of the attitudes toward the RFDP were favorable, comparable to the findings of survey research.

KEY WORDS: Attitudes, computer content analysis, fees, national forests, Recreational Fee Demonstration Program

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